

THE EXCHANGE

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Clinical Innovations

New Milestones

Better Outcomes

Cover Feature

India's Leading Radiation Oncology Team

Now Backed By

India's First Varian Edge with RapidArc Dynamic,
Identify and HyperArc



Dr. Mayur Mayank

Dr. Deepak Gupta

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Dr. Tejinder Kataria

Dr. Shyam Singh Bisht

Dr. Susovan Banerjee

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Feature Story

Medanta - Gurugram

Introducing India's First Varian Edge with RapidArc Dynamic, Identify and HyperArc

A Next-Generation Precision Radiotherapy



Scan to watch Dr. Tejinder Kataria explain the technology in detail.



Medanta Gurugram has introduced India's first Varian Edge radiotherapy platform, integrating RapidArc Dynamic, Identify™ surface guidance, HyperArc™, and functional stereotactic radiosurgery (SRS) cones, marking a significant step forward in the delivery of high-precision cancer care.

The Varian Edge system is designed to support image-guided, motion-managed radiotherapy, particularly for complex and stereotactic treatments. By combining advanced imaging, dynamic beam modulation and real-time monitoring on a single platform, it enables clinicians to deliver highly conformal radiation doses while limiting exposure to surrounding healthy tissues.

RapidArc Dynamic allows continuous adjustment of dose rate, gantry speed and beam shape during treatment,

supporting precise dose delivery with improved efficiency. Identify™ surface guidance provides real-time monitoring of patient positioning and movement, automatically pausing radiation if alignment shifts. This enhances treatment safety and consistency, especially in paediatric and high-risk patients, and reduces reliance on rigid immobilisation in select cases.

HyperArc™ technology supports automated, non-coplanar planning for stereotactic treatments, particularly in brain lesions, enabling high-dose delivery with sub-millimetre precision while sparing critical structures. The addition of functional SRS cones further extends the system's capability to treat select benign and functional brain conditions with high accuracy.

With advanced motion management and high-dose-rate delivery, Varian Edge enables precise treatment of tumours affected by respiration, including cancers of the lung, liver and upper abdomen. For selected indications, treatment can be delivered in fewer sessions with shorter on-table time, improving patient comfort without compromising accuracy.

The platform supports a broad spectrum of radiotherapy approaches, including conventional fractionation, hypofractionated schedules, stereotactic body radiotherapy (SBRT) and stereotactic radiosurgery (SRS). Its introduction reinforces Medanta's commitment to precision-driven, patient-centred oncology care and strengthens its capability to manage complex cancers across multiple disease sites.

“The Varian Edge platform strengthens our ability to deliver highly precise radiotherapy across a wide range of cancers, including complex and stereotactic cases. By integrating surface guidance, dynamic dose modulation and advanced planning, it allows us to improve targeting accuracy while enhancing patient comfort and treatment efficiency.”

Dr. Tejinder Kataria

Chairperson - Radiation Oncology
Medanta - Gurugram

India's Leading Radiation Oncology Team

Now Backed By

A New Benchmark In High-Precision Radiotherapy

Introducing

India's First Varian Edge with RapidArc Dynamic, Identify™ & HyperArc®
at Medanta Gurugram

RAPIDARC DYNAMIC
Ultra-fast, high-accuracy dose delivery
Real-time modulation of speed, shape and dose
Shorter, more precise treatments in fewer rotations

IDENTIFY™ SURFACE GUIDANCE
True real-time positioning + motion safety
Continuous surface tracking for perfect alignment
Instantly detects patient movement to prevent errors
Supports respiratory gating for moving tumours

HYPERARC® SRS
Next-level brain radiosurgery
Automated, non-coplanar planning
Exceptional accuracy for single or multiple brain metastasis

VELOCITY™ Comprehensive Data Integration
Aggregates imaging for longitudinal history
Enables better tumour visualisation and informed decision-making

Key Benefits To Patients

 **Minimal or no masks**
ideal for claustrophobic patients

 **Sessions as short as 1 min**
reducing time on the table

 **Ideal for moving tumours**
or multiple brain lesions

 **Reduced side-effects with greater precision**
protecting healthy organs

 **Just 3-5 sessions needed**
for select cancers

Case Study

Medanta - Patna

EPS-Guided Ablation in WPW Syndrome

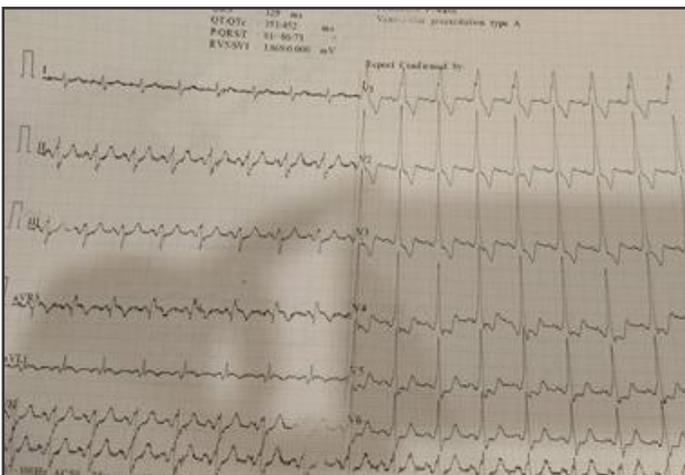
Management of Recurrent Syncope Due to a Left-Sided Accessory Pathway

An Electrophysiology Study (EPS) is a specialised invasive test used to map the heart's electrical pathways and identify abnormal circuits responsible for arrhythmias. When a culprit pathway is identified, Radiofrequency Ablation (RFA) can precisely target and eliminate the abnormal focus, offering a safe and often definitive cure for many tachyarrhythmias.

Wolff-Parkinson-White (WPW) syndrome affects approximately 0.1–0.3% of the general population. In patients with WPW, syncope is a high-risk presentation and may signal rapid conduction of atrial fibrillation (AF) over the accessory pathway, predisposing to life-threatening arrhythmias, including sudden cardiac death. Such cases require urgent electrophysiological evaluation.

Case Study

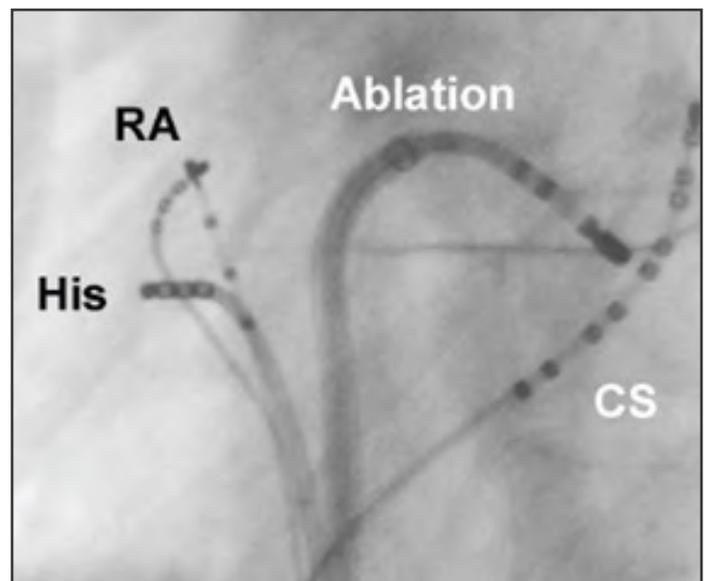
A 73-year-old male, non-diabetic and non-hypertensive, with a known diagnosis of WPW syndrome, presented to the outpatient department with a two-year history of recurrent syncopal episodes preceded by palpitations. He was receiving oral flecainide. Echocardiography revealed a normal left ventricular ejection fraction, while the 12-lead ECG demonstrated a classical WPW pattern.



Lead ECG showing WPW pattern

Holter monitoring provided a key clinical clue, showing multiple episodes of intermittently pre-excited atrial fibrillation. Based on these findings, EPS with RFA was advised.

On admission, the patient was haemodynamically stable. Through the femoral venous approach, three quadripolar catheters were positioned in the right ventricle, His bundle region, and coronary sinus (Figure 2). Intracardiac electrograms from CS 1/2 during sinus rhythm indicated the presence of a left-sided accessory atrioventricular pathway (AP). Orthodromic atrioventricular re-entrant tachycardia (AVRT) was subsequently induced with a cycle length of 316 ms.



Fluoroscopic view of catheter position in the heart

A trans-septal puncture was performed, and the accessory pathway was mapped using a specialised catheter identifying the site of earliest ventricular activation. Radiofrequency energy was delivered at the lateral mitral annulus (CS 1/2), resulting in immediate disappearance of pre-excitation.

Post-ablation assessment demonstrated dual AV nodal physiology with a single echo beat, but no inducible AVNRT, even with isoprenaline infusion; hence, slow-pathway ablation was not pursued.

The patient remained stable overnight. A repeat ECG the next morning showed complete resolution of the delta wave. With successful ablation of the left lateral pathway and no complications, he was discharged without antiarrhythmic medication.



Successful ablations of WPW evidence by disappearance of delta

Timely recognition, especially in older patients presenting with syncope, is critical to preventing catastrophic arrhythmic events.

Dr. Pramod Kumar

Director and HOD - Clinical and Preventive Cardiology

Medanta - Patna



Dr. Shaheen Ahmed

Director - Cathlab

Medanta - Patna



Dr. Poppy Bala

Fellow - Electrophysiology and Pacing

Medanta - Patna

Final Outcome and Discussion

WPW syndrome is characterised by the presence of a congenital accessory pathway that conducts impulses directly from the atria to the ventricles, bypassing the AV node. When AF coexists, rapid conduction over the pathway may degenerate into ventricular fibrillation, making pre-excited AF a major cause of sudden cardiac death in WPW.

In unstable patients, immediate electrical cardioversion is indicated. In stable patients, class IA, IC, or class III antiarrhythmic agents may be used; however, AV nodal blockers (beta-blockers, calcium-channel blockers, adenosine, and digoxin) must be avoided as they may enhance conduction through the accessory pathway.

This case presented specific challenges. Tortuous venous anatomy made catheter manipulation difficult. Age-related changes, including a dilated left atrium, added complexity to mapping and ablation. The patient demonstrated multiple arrhythmogenic substrates: an accessory pathway, orthodromic AVRT, pre-excited AF, and dual AV nodal pathways—requiring careful electrophysiological assessment and procedural strategy.

Ablation success rates for left-sided accessory pathways exceed 95%, with recurrence rates below 5%. Following successful elimination of the pathway, associated tachyarrhythmias often resolve, making EPS-guided RFA the definitive curative treatment for symptomatic WPW.

Case Study

Medanta - Gurugram

Robotic-Assisted Radical Nephrectomy for Renal Cell Carcinoma in an Ectopic Pelvic Kidney

An ectopic kidney is a congenital anomaly characterised by an atypical renal location due to faulty ascent during embryogenesis. The pelvic region is the most common site, though ectopic kidneys may also occur in the iliac region, thorax, or even on the contralateral side.

While often asymptomatic, ectopic kidneys can be associated with malrotation and are predisposed to stone formation, pelvi-ureteric junction obstruction, and recurrent urinary tract infections. The occurrence of renal cell carcinoma (RCC) in an ectopic kidney is exceedingly rare. Surgical management in such cases is particularly challenging owing to aberrant vascular anatomy and limited working space in the pelvis.

We present a case of robot-assisted radical nephrectomy (RARN) performed for a renal mass arising in an ectopic pelvic kidney, highlighting the role of robotics in achieving safe and precise oncological resection in anatomically complex situations.

Case Study

A gentleman in early 60s with prior history of coronary artery disease, hypertension and recently diagnosed diabetes mellitus presented to our OPD with an incidentally detected left renal mass detected during workup for hypertension elsewhere. Clinical examination was unremarkable. An abdominal ultrasound revealed an ectopic left kidney in left pelvic cavity with a heterogenous hyperechoic lesion of size 40 x 35 mm in renal cortex at mid polar region. The findings were corroborated by performing a contrast enhanced CT scan which confirmed the ectopic location of the kidney just superolateral to urinary bladder in left para midline with a heterogeneously enhancing cortical mass of size 40 x 39 mm in mid pole of left kidney. The mass showed intense arterial enhancement with internal non enhancing necrotic components. Two left renal arteries were visualised, one each arising from left and right common iliac arteries just distal to aortic bifurcation. The mass was being supplied from inferior branch of renal artery arising from left common iliac artery. Single renal vein was seen with bifurcation just before its drainage to right common iliac vein. There was no associated hydronephrosis and left ureter was normal in course. Right kidney was normal in size and position. Metastatic workup was done which confirmed localised nature of the tumour. Functional evaluation done using DTPA renal scan showed a minimally functioning left kidney. Patient and family were counselled regarding the nature of the disease, complex location and anatomy of left kidney. The outcomes and possible complications of the surgery were explained in detail and the patient was offered robot assisted radical nephrectomy (RARN).

The surgery was done in supine position using Da Vinci XI robotic system. After deflecting the sigmoid colon, the ectopic kidney was visualised. Kidney was dissected with all around. Hilar dissection revealed multiple renal arteries. Each of them was carefully dissected and clipped separately and divided. Single renal vein was isolated and divided. The console time was 2 hours with a minimal blood loss of 100 ml. No abdominal drain was kept. Post operative period was uneventful. There was no decrease in haemoglobin. Soft diet was started on same day. Foleys catheter was removed on POD 1 and patient was made ambulatory. Patient was discharged on 2nd post operative day. Histopathology showed clear cell renal carcinoma with no extra renal spread or nodal extension with a Leibovich score of 3. Patient is under follow up and is doing well at 2 months with a post-operative serum creatinine of 1.02 mg/dl.

Discussion

Ectopic kidneys are infrequent and remain undiagnosed till symptomatic. Surgical management poses a significant challenge due to anatomy, location, abnormal vascular supply and atypical course of ureter. Ectopic location may predispose the kidney to extrinsic compression compromising its drainage. Management of asymptomatic ectopic kidneys depends on functional status of the kidney, presence of any infection, presence of a tumour and/or associated stones. Use of robot in surgical management of ectopic kidneys offers advantage of dissection under magnification, minimal blood loss and lesser post-operative pain to the patient.

Conclusion

Ectopic kidneys pose significant challenges in surgical management. Application of robotics can be done in cases of complex anatomy and offers a safe procedure with minimal peri-operative morbidity to the patient.



Axial and coronal sections of CT abdomen and pelvis showing location of left kidney in pelvic region abutting urinary bladder superolaterally with an endophytic complex mass of size 40 x 39 mm at lower pole

Dr. Puneet Ahluwalia

Senior Director and Head - Uro-oncology and Robotic Surgery

Medanta - Gurugram



Case Study

Medanta - Noida

Robotic Assisted Radical Prostatectomy for High-Risk Prostate Cancer

A 73-year-old gentleman, was admitted for surgical management of biopsy-proven carcinoma prostate. His diagnosis was Gleason score 8 (4+4) adenocarcinoma with a total PSA of 27. He had a background of chronic obstructive airway disease under pulmonology care and a history of glaucoma, with a previous trabeculectomy in the right eye. He had no known drug allergies.

Pre-admission Evaluation

He presented without acute complaints but required definitive surgical treatment. On admission, he was alert, oriented and clinically stable.

Vital signs: Temperature 97.7°F, pulse 92 per minute, respiratory rate 20 per minute and blood pressure 136/85 mmHg.

Systemic examination showed normal heart sounds with no added murmurs, clear lungs without adventitious sounds, a soft and non-tender abdomen and a normal neurological assessment. There was no pallor, cyanosis, clubbing, icterus, lymphadenopathy or raised JVP.

Routine investigations were completed along with pre-anaesthesia assessment. After evaluation, the patient and relatives were counselled regarding the nature of the disease, surgical plan and expected outcomes.

Surgical Procedure

The patient underwent robotic assisted radical prostatectomy on 27 October 2025 under general anaesthesia. Four 8 mm robotic ports and two assistant ports (12 mm and 5 mm) were placed.

Operative findings included a prominent median lobe and adhesions along the right lateral aspect.

The seminal vesicles were dissected posteriorly, and the bladder was mobilised. The deep venous complex was secured with Stratafix 2-0. Lateral attachments were divided using bipolar and monopolar energy. The bladder neck was divided with monopolar cautery and reconstructed in a fish-mouth configuration after identifying both ureteric orifices.

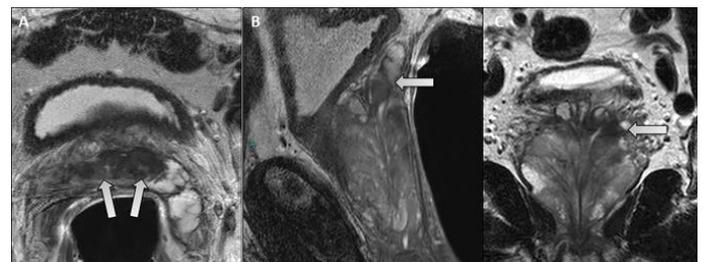
The prostatic pedicles were clipped and divided. The apex was dissected, and the urethra was transected. Bladder-urethral anastomosis was performed using V-LOK 3-0, and watertight closure was confirmed. Bilateral pelvic lymph node dissection was carried out. A drain and Foley catheter were placed at the end of surgery.

Post-operative Course

The patient tolerated the procedure well. Post-operatively, he remained haemodynamically stable, resumed oral intake and mobilised satisfactorily. Wound care and drain monitoring continued without complication. Pulmonary care was reinforced given his underlying airway disease, and incentive spirometry was encouraged.

As part of routine post-operative assessment, a neurosurgical review was completed on the day of surgery.

The patient was discharged on post-operative day 4 in a stable condition with the Foley catheter in situ.



Seminal vesicle invasion on multi-parametric magnetic resonance imaging: Correlation with histopathology

Final Histopathology and Further Management

Final histopathological examination of the radical prostatectomy specimen confirmed acinar adenocarcinoma of the prostate with a Gleason score of 4+3=7 (Grade Group 3). The tumour involved approximately 30% of the prostate gland, with predominant involvement of the right posterior quadrant. Perineural invasion was noted, while extraprostatic extension and seminal vesicle invasion were not identified.

Surgical margins showed multifocal involvement, predominantly at the left posterior quadrant, with a maximum linear length of 4 mm. Lymphovascular invasion was not seen. Bilateral pelvic lymph node dissection demonstrated no evidence of metastatic disease (right: 0/5 nodes; left: 0/6 nodes). The final pathological stage was pT2 pN0, consistent with organ-confined disease.

In view of the pathological findings, the patient was advised regular post-operative follow-up with serial PSA

monitoring. Further management was planned based on biochemical surveillance and multidisciplinary team discussion.

Dr. Dushyant Nadar

Director - Urology and Kidney Transplant
Medanta - Noida



Dr. Rahul Gupta

Associate Director - Urology and Kidney Transplant
Medanta - Noida



Dr. Abhinav Veerwal

Senior Consultant - Urology
Medanta - Noida



TechByte

Medanta - Gurugram

VELscope Vx for Early Recognition of Oral Mucosal Abnormalities

Now available at Medanta Gurugram

Why this technology matters

Changes in the oral mucosa often develop gradually and may not be obvious during routine white-light examination. This is particularly true in patients with long-standing tobacco use or persistent oral symptoms. VELscope Vx offers an additional method of assessment, supporting more confident clinical evaluation during both initial examination and follow-up.

How VELscope Vx works

VELscope Vx uses a safe blue light to visualise tissue fluorescence. Normal oral mucosa shows a consistent fluorescence pattern, while areas with epithelial or vascular alteration demonstrate reduced fluorescence and appear darker. The examination is non-invasive, takes only a few minutes, and can be performed alongside standard oral examination.

Clinically trusted and widely used

The device has been used in more than ten million examinations worldwide and is supported by the World Health Organization. It is widely used as an adjunctive tool in oral cancer screening across dental, ENT, and oncology practices.

Clinical advantages for practice

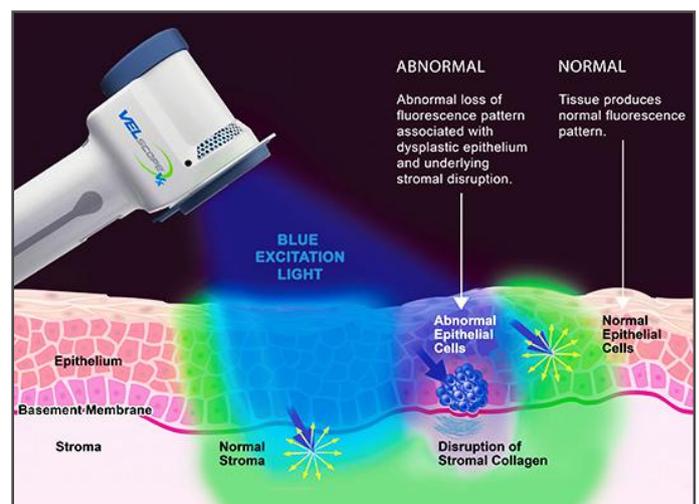
- Helps in identifying subtle mucosal changes that may require closer evaluation
- Supports selection of appropriate areas for biopsy
- Useful in screening high-risk individuals, including tobacco users
- Assists in follow-up of lesions with uncertain clinical appearance
- Integrates easily into routine examination without adding significant time

Supporting informed clinical assessment

When used alongside routine white-light examination, fluorescence visualisation can provide additional perspective in cases where findings are clinically ambiguous. This supports more informed decision-making and clearer communication with patients regarding further evaluation or follow-up.

Now part of Medanta's screening pathway

VELscope Vx is now available at Medanta Gurugram as part of the institution's oral screening and assessment services.



Kudos



Dr. Bharat Gopal
Senior Director and Head
Interventional Pulmonology
Medanta - Gurugram

was honoured with the prestigious NCCP Dr. Paintal-Dr. Jain Oration Award 2025 at the recent National Pulmonology Conference held at Patna.T

he award, presented by Shri Arif Mohammad Khan, Hon'ble Governor of Bihar, recognises Dr Gopal's significant contributions in the field of respiratory, sleep medicine and interventional pulmonology in India. As part of the honour, Dr. Gopal delivered the oration titled "India's Air Quality Crisis: The Pulmonologist's Responsibility in a Changing Climate."



Dr. Smriti Ram
DNB (Radiation Oncology)
Medanta - Gurugram

was awarded Certificate of Commendation from National Board of Examinations in Medical Sciences (NBEMS) for outstanding research work in her thesis. She also won multiple honours at AROICON 2025, Kolkata, including:

1st Prize
AROICON Quiz
(National Finals)



Dr. M. S. Gujral
Gold Medal
(Best Scientific Paper)



Welcome Onboard



Dr. Mahim Mittal
Director - Internal Medicine
Medanta - Lucknow

Dr. Mittal specialises in the comprehensive management of gastrointestinal disorders, diabetes, hypertension and infectious diseases, including prolonged fever. He also has expertise in treating rheumatological and respiratory conditions, with a strong focus on holistic internal medicine and geriatric care.



Dr. Madhan Kulandaiswamy
Senior Consultant - Cardiac Anaesthesia
Medanta - Ranchi

Dr. Kulandaiswamy specialises in adult and paediatric cardiac anaesthesia, ECMO management, cardiac critical care, and transplant anaesthesia, with expertise in transoesophageal echocardiography and advanced perioperative care.



Dr. Ritupurna Dash
Senior Consultant - Dermatology
Medanta - Noida

Dr. Dash specialises in clinical, paediatric and aesthetic dermatology, with expertise in dermatosurgery and laser-based procedures. She has extensive experience in managing skin, hair and nail disorders, with a strong focus on evidence-based and personalised dermatological care.





Dr. Smriti Sinha

Senior Consultant - Nephrology and Kidney Transplant Medicine
Medanta - Noida

Dr. Sinha specialises in kidney transplantation and interventional nephrology, with extensive experience in complex dialysis access procedures and renal biopsies. She has also performed ABO-incompatible kidney transplants.



Dr. C.B. Pandey

Consultant - Cardiology
Medanta - Ranchi

Dr. Pandey specialises in complex coronary and peripheral angioplasty, CHIP interventions, structural heart procedures, and advanced intravascular imaging.



Dr. Munir Ahmad Khan

Consultant - Cardiac Anaesthesia
Medanta - Patna

Dr. Khan specialises in adult and paediatric cardiac anaesthesia, including minimally invasive cardiac surgery and valve procedures. He also has expertise in thoracic and vascular anaesthesia and postoperative cardiac critical care.



Dr. Asif Baliyan

Consultant - Histopathology
Medanta - Noida

Dr. Baliyan specialises in oncopathology and cytopathology, with expertise in immunohistochemistry and molecular pathology.



Dr. Pulak Abhishek

Consultant - Radiology and Imaging
Medanta - Patna

Dr. Abhishek specialises in diagnostic radiology, with expertise in ultrasound and Doppler studies for adult, paediatric and gynaecological imaging. He is also experienced in CT and MRI imaging, including angiography and image-guided procedures.



Dr. Omvir Singh

Associate Consultant - Clinical & Preventive Cardiology
Medanta - Noida

Dr. Singh specialises in acute coronary syndromes, heart failure and rhythm disorders, with extensive experience in non-invasive cardiac diagnostics and critical cardiac care.



Dr. Jasmine Porwal

Consultant - Medical Oncology and Haemato-oncology
Medanta - Gurugram

Dr. Porwal specialises in the management of solid tumours and haematological malignancies, including chemotherapy, immunotherapy and targeted therapy. Her expertise also includes bone marrow transplantation, oncological emergencies and palliative cancer care.



Dr. Nitesh Anand

Associate Consultant - Medical Oncology and Haemato-oncology
Medanta - Gurugram

Dr. Anand specialises in the management of solid tumours and blood cancers, with expertise in immunotherapy, targeted therapy and translational oncology research.



Dr. Prabhat Kumar Choudhary

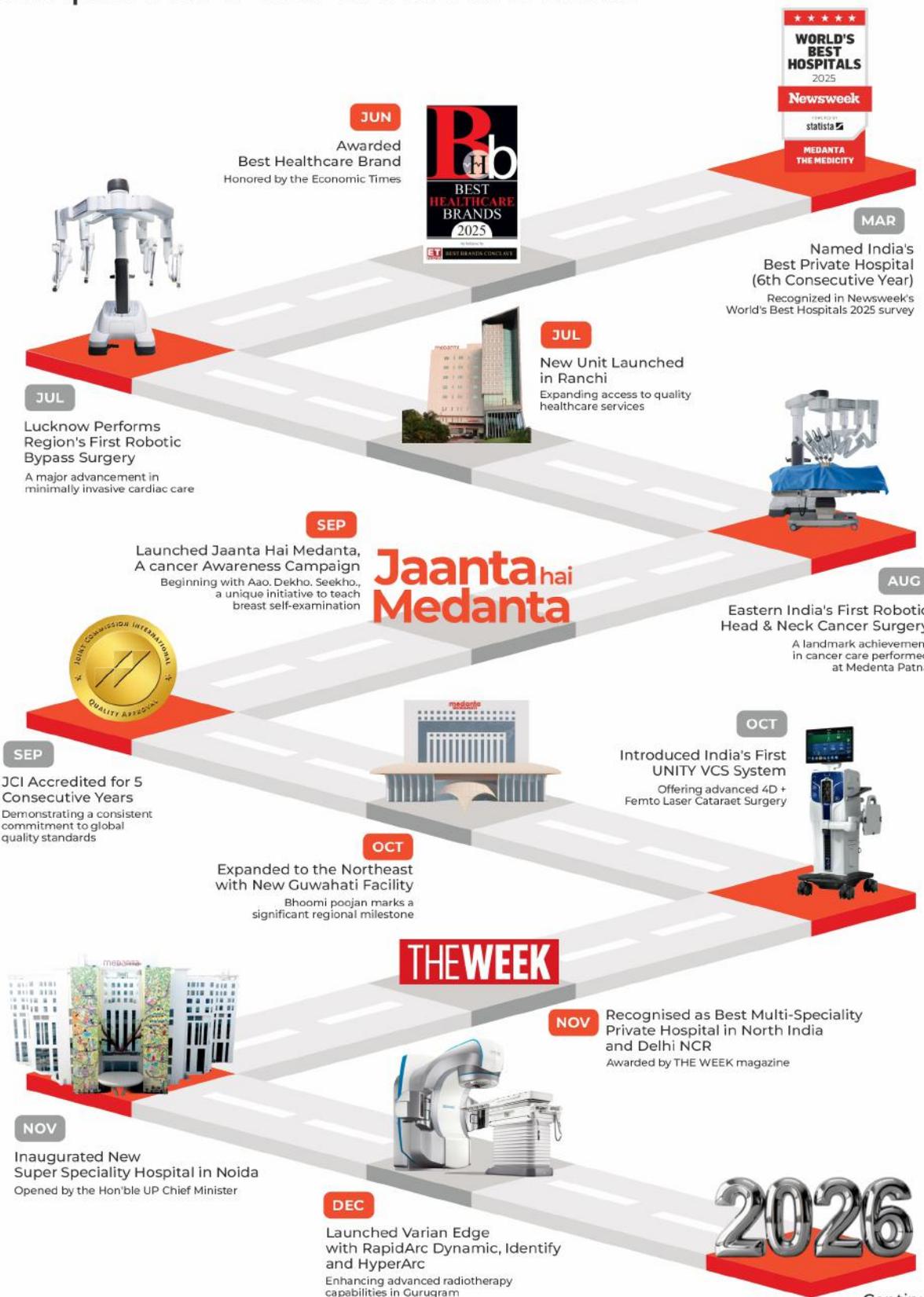
Associate Consultant - Cardiac Anaesthesia
Medanta - Patna

Dr. Choudhary specialises in adult and paediatric cardiac anaesthesia, minimally invasive cardiac surgery, and perioperative critical care.



Medanta 2025 Highlights

A Glimpse into a Year of Achievements



Continuing the Journey of Care...



Welcoming new year with a commitment to better health and growth.

IN CASE OF **EMERGENCY** DIAL **1068**

Medanta Network

Hospitals

Medanta - Gurugram

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info@medanta.org

Medanta - Lucknow

Sector - A, Pocket - 1, Sushant Golf City,
Amar Shaheed Path, Lucknow | Tel: 0522 4505 050

Medanta - Patna

Jay Prabha Medanta Super-Speciality Hospital,
Kankarbagh Main Road, Kankarbagh Colony, Patna
Tel: 0612 350 5050

Medanta - Ranchi

Medanta Abdur Razzaque Ansari Memorial Weavers,
P.O. Irba, P.S. Ormanjhi, Ranchi | Tel: 1800 891 3100

Medanta - Hospital, Ranchi
NH 33, P.O. Irba, P.S. Ormanjhi, Ranchi | Tel: 1800 891 3100

Medanta - Indore

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AB Road, Indore | Tel: 0731 4747 000

Medanta - Noida

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Gautam Buddha Nagar, U.P. | Tel: 0120 3141 414

Mediclinics

Defence Colony

E - 18, Defence Colony, New Delhi | Tel: 011 4411 4411

Cybercity

UG 15/16, DLF Building 10 C, DLF Cyber City,
Phase II, Gurugram | Tel: 0124 4141 472

Subhash Chowk

Plot No. 743P, Sector - 38, Subhash Chowk,
Gurugram | Tel: 0124 4834 547

Cyber Park

Shop No. 16 and 17, Tower B, Ground Floor,
DLF Cyber Park, Plot No. 405B, Sector-20, Udyog
Vihar, Gurugram | Tel: 93541 41472

Golf Course Road

562 SP, Sector 27, Golf Course Road,
Gurugram | Tel: 0124 6930 099

Ranchi

Shah Corporate, Kutchary Road, Opp. Atal Smriti
Vendor Market, Ranchi | Tel: 1800 891 3100

Medanta Helpline: 88-0000-1068

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